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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,985	02/20/2002	Nitzan Arazi	2098/11	7971

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EXAMINER

ZEWDU, MELESS NMN

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/077,985	Applicant(s) ARAZI ET AL.	
	Examiner Meless N. Zewdu	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
 4a) Of the above claim(s) 7-9, 11, 16-18, 20, 30-32, 34, 38-40 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-8, 11, 16-17, 20, 30-31, 34, 38-39 and 42 is/are rejected.
- 7) ☐ Claim(s) 9, 18, 32 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on 10/10/2-6.
2. Claims 1-3, 13, 22-23, 27 and 35 were previously cancelled.
3. Claims 4-6, 10, 12, 14-15, 19, 21, 24-26, 28-29, 33, 36-37 and 41 have been cancelled in the current amendment.
4. Claims 1-6, 10, 12-15, 19, 21-29, 33, 35-37 and 41 are cancelled in the current amendment.
5. Claims 7-9, 11, 16-18, 20, 30-32, 34, 38-40 and 42 are pending in this action.

The indicated allowability of claims 7-9, 11, 16-18, 20, 30-32, 38-40 and 42 is withdrawn in views of the newly discovered reference(s) to Kim et al. (Kim) (US 6,714,524 B1), Haartsen (US 6,490,446 B11) and Keskitalo (US 5,345,448). Rejections based on the newly cited reference(s) follow.

Claim Objections

Claim 11 is objected to because of the following informalities: the claim includes a typographical error '1ff' mistaken for RF. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 recites the limitation "the group" in lines 9, 12 and 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the group" in lines 11-12 and 15. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "the group" in line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the group" in line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the group" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the group" in line 17. There is insufficient antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "the group" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 31 recites the limitation "the group" in lines 9, 17. There is insufficient antecedent basis for this limitation in the claim.

Claim 32 recites the limitation "the group" in line 2. There is insufficient antecedent basis for this limitation in the claim.

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Claim 34 recites the limitation "the group" in lines 12 and 14. There is insufficient antecedent basis for this limitation in the claim.

Claim 38 recites the limitation "the group" in lines 9,15 and 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 39 recites the limitation "the group" in lines 9 and 17. There is insufficient antecedent basis for this limitation in the claim.

Claim 40 recites the limitation "the group" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 42 recites the limitation "the group" in lines 12 and 13. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-9, 11, 16-18, 20, 30-32, 34, 38-40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,714,524 B1) in view of Keskitalo (US 5,345,448) and Haartsen (US 6,490,446 B1). For examination purposes, claim 8 is considered first.

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As per claim 8: Kim discloses, in a wireless communication system a method comprising a base station connected with a mobile unit (see fig. 1A; abstract; fig. 1; col. 1, line 62-col. 2, line 17; col. 5, lines 5-25), comprising:

transferring to the at least one base station waiting for the mobile unit to enter its coverage area timing information identifying a time interval (see col. 4, lines 8-22; col. 5, lines 8-25);

from the at least one base station waiting for the mobile to enter its coverage area, sending at least one PING command to the mobile unit during said time interval (see col. 4, lines 50-65; col. 5, line 2-25; claim 1);

at the base station waiting for the mobile unit to enter its coverage area, receiving at least one ECHO reply from the mobile unit (see col. 4, lines 50-65; col. 5, line 2-25; claim 1). The command and response signals between respectively the base station and mobile station in the prior art correspond to the PING and ECHO.

wherein the mobile unit is a device selected from the group consisting of: telephone handset, standard cordless handset, cellular telephone handset, personal data device, personal digital assistant (PDA), computer, laptop computer, e-mail server, a device utilizing point-to-point protocol (PPP) to the internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music device (see figs. 1A-1B; col. 2, lines 5-19). Since the devices in the group are not simultaneously utilized, rather one is selected, the mobile station of the prior art could have been the one selected. But, Kim doe not explicitly teach about a detecting a mobile unit by at least one other base station which is waiting for the mobile

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unit to enter its coverage area and at each base station, maintaining information about connections between mobile units and neighboring base stations, wherein the information is selected from the group consisting of connection number, handset ID, base station ID, handoff status and handset status, as claimed by applicant. However, in the same field of endeavor, Keskitalo teaches about a procedure for the handover of radio connection, wherein a second base station is waiting for the mobile to move into its coverage area and wherein the first and second base stations each has the channel information and the mobile identity, among other things, so as to facilitate the handover procedure (see abstracta0. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Kim's reference with the teaching of Keskitalo for the advantage transmitting to a second base station identifying information regarding a mobile identification information regarding the mobile station including a frequency channel information enabling tuning of the second base station to a channel which the mobile shall transmit (see col. 2, lines 60-col. 3, line 5). But, Kim in view of Keskitalo do not explicitly teach about, at each base station, maintaining information about connection between mobile units and neighboring base stations, wherein the information is selected from the group consisting of connection number, handset ID, base station ID, handoff status and handset detection status, as claimed by applicant. However, in the same field of endeavor, Haartsen teaches about uncoordinated frequency hopping cellular system, wherein each base station receives information pertaining to at least one other base station, from more recent contact with mobile units, wherein the information includes synchronization/connection information

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(mobile IDs and at least one base station ID is obvious from this communication) (col. 2, line 56-18; col. 9, lines 1-65). Since all members/elements in the group of information are not utilized, the connection information of the prior art could have been the one selected. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the above references with the teaching of Haartsen for the advantage of effecting handovers to take place between FH base stations even if the base stations are by no means coordinated (see col. 1, lines 6-12).

As per claim 11: the features of claim 11 are similar to the features of claim 8, except providing communication links between the base stations, wherein the communication links between the base stations are selected from the group consisting RF and land lines, which is taught by Keskitlo (see fig. 1 and 2), wherein the communication system includes both RF and landline links; and except transferring connection status information and rough synchronization information between the base stations over the communication link, which is taught by Haartsen, as discussed above (see col. 2, line 66-33). The base stations update/correct their drift clocks which indicates the presence of rough sync. State. Thus claim 11 is rejected on the same ground and motivation as claim 8.

As per claim 16: the features of claim 16 are similar to the features of claim 8. Hence, claim 16 is rejected on the same ground and motivation as claim 8.

As per claim 17: the features of claim 17 are similar to the features of claim 8. Hence, claim 17 is rejected on the same ground and motivation as claim 8.

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As per claim 20: the features of claim 20 are similar to the features of claim 11. Hence, claim 20 is rejected on the same ground and motivation as claim 11.

As per claim 31: the features of claim 31 are similar to the features of claims 8 and 30. Hence, claim 31 is rejected on the same ground and motivation as claims 8 and 30.

As per claim 34: the features of claim 34 are similar to the features of claims 11 and 30. Hence, claim 34 is rejected on the same ground and motivation as claims 11 and 30.

As per claim 39: the features of claim 39 are similar to the features of claim 30. Hence, claim 39 is rejected on the same ground and motivation as claim 30.

As per claim 42: the features of claim 42 are similar to the features of claims 11 and 30. Hence, claim 42 is rejected on the same ground and motivation as claims 11 and 30.

As per claim 7: the features of claim 7 are similar to the features of claim 8, except

wherein the PING command comprises data fields selected from the group consisting of a device address for the mobile unit, an identifier for the mobile unit, a message length, and data and wherein the ECHO response comprises data fields selected from the group consisting of a device address for the mobile unit, an identifier for the mobile unit, a message length, and data, which is taught by Kim (see abstract; col. 2, line 35-col. 3, line 22; col. 4, line 50; col. 5, line 25; claims). In Kim, the base station and the mobile station exchange command and response message signals using the MAC layer (which is known to include and provide device addresses/identification). Hence, at least the mobile identifier/address and that of the

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base station identifier/address should be obvious from the message/s exchanged and could have been the one /s selected. Therefore, claim 7 is rejected on the same ground and motivation as claim 8.

As per claim 30: the features of claim 30 are similar to the features of claims 7 and 8, except a second base station able to receive timing information identifying a timing of a time interval yielded by a first base station which is taught by Haartsen (see col. 3, lines 5-18). Hence, claim 30 is rejected on the same ground and motivation as claims 7 and 8.

As per claim 38: the features of claim 38 are similar to the features of claim 7. Hence, claim 38 is rejected on the same ground and motivation as claim 7.

Response to Arguments

Applicant's arguments with respect to claims 7-9, 11, 16-18, 20, 30-32, 34, 38-40 and 42 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Claims 9, 18, 32 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Banks-Harold Marsha can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Meless Zewdu

A handwritten signature in cursive script, appearing to read "Zewdu, Meless".

Examiner

22 December 2006.